

# A Performance Analysis of Real Time Kinematic GNSS Services in Taiwan

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## SUMMARY

Network RTK, including FKP, VRS, PRS, and MAC correction techniques, may be the most widely implemented real time kinematic services at present. In Taiwan, National Land Surveying and Mapping Center provides a VRS based system, eGNSS. The objective of eGNSS is mainly for supporting cadastral surveying, but widely applied for other applications, such as construction surveying and topographic mapping. While the number of users is growing, the frequency of reports on fails in obtaining fixed solution is also increasing. The current explanation is the activeness of ionospheric turbulence. This study documents an investigation on the relation between the I95 index and the occurrence of the fails with 10 days observation. The sampling interval is one seconds. Among the 864,000 samples, 98% were fixed. But not all the other 16,556 samples, which failed, have I95 value larger than 30.